

Notes on the Lepturine Genus *Pidonia* (Coleoptera, Cerambycidae) from East Asia

V. Two New Species of the Subgenus *Mumon* from Taiwan

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Abstract Two new species of the lepturine genus *Pidonia* are described from Taiwan. Both belong to the subgenus *Mumon*; one of them, *P. (M.) chienhsingi*, is related to *P. formosana*, while the other, named *P. (M.) sacrosancta* to *P. aestivalis*.

The present paper contains the result of my study on the species of the genus *Pidonia* obtained on mountainous areas of Taiwan. Two species are new to science and will be named *Pidonia chienhsingi* and *P. sacrosancta*. The holotypes of the new species to be described below will be deposited in the collection of the National Museum of Natural Science, Tai-chung, Taiwan.

In preparing this report, I wish to express my hearty thanks to Mr. Chien-hsing WENG, Republic of China Alpine Association, Taipei, for his kind help during my mountain-climbing and collecting trip in Taiwan. My thanks are also due to Mr. A. NISHIYAMA who gave me the opportunity to work with this interesting material.

Pidonia (Mumon) chienhsingi KUBOKI, sp. nov.

(Figs. 1–2, 4–5)

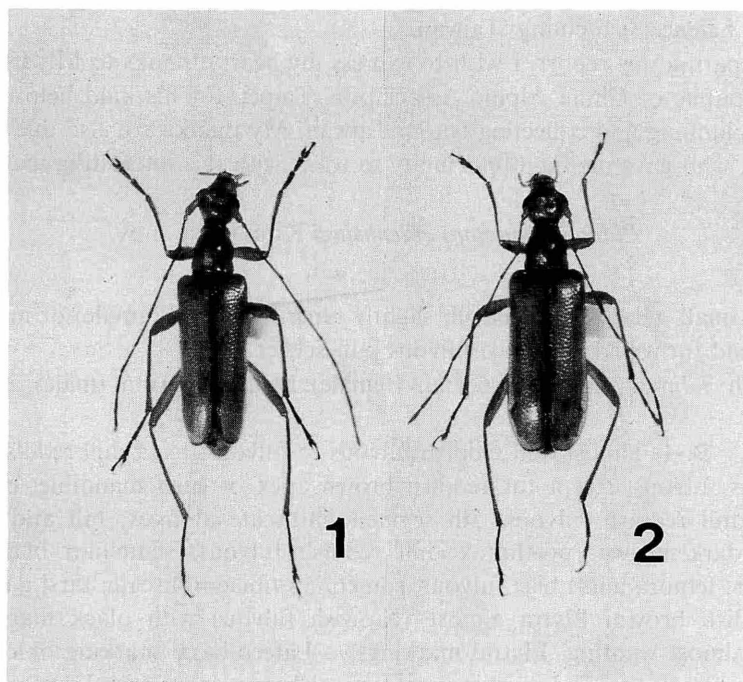
Body small, relatively roundish, slightly tapering apically (male) or more robust (female), and furnished with pale fulvous pubescence.

Length: 7.7 mm (male), 7.7–6.2 mm (female); breadth: 2.0 mm (male), 2.2–1.7 mm (female).

Color. Body almost dull reddish fulvous to fulvous; head dull reddish fulvous; mouthparts fulvous except for reddish brown apex of each mandible; eyes black; antennae dull reddish fulvous; 5th segment infusate at apex; 6th and following segments dark brown; prothorax dull reddish fulvous; scutellum black; coxae, trochanters, femora and tibiae fulvous; sometimes tibiae infusate; tarsi dark brown; claws reddish brown. Elytra almost yellowish fulvous with black margin; black markings almost wanting. Elytral markings:— Latero-basal marking oblong, small, very faintly present; apical marking very narrowly present. Ventral surface:— Head and thoraces almost dull reddish fulvous; meso- and metasterna black; abdomen fulvous.

Structure. Head a little broader across eyes than basal width of prothorax (male, 1.09: 1; female, 1.01: 1); terminal segment of maxillary palpus broadened apically, obliquely truncate at apex, with slightly curved outer margin in male; terminal segment of maxillary palpus club-shaped, gradually broadened in basal two-thirds and narrowed towards apex, obliquely truncate at apex, with curved outer margin in female; temples small, almost impunctate and shining, gradually narrowed posteriorly in anterior halves and gently constricted in posterior halves, with several setae; frons subvertical and transverse, covered with coarse punctures, bearing a fine but distinct median longitudinal furrow extending backwards to vertex; vertex fairly convex above, rather shining, sparsely and finely punctate and sparsely clothed with long pubescence; gula shining, very sparsely clothed with long pubescence.

Eyes relatively prominent, moderately faceted and shallowly emarginate at middle of internal margins. Antennae relatively long and slender, inserted just behind the level across frontal margins of eyes and slightly longer (male) or slightly shorter (female) than body; 1st segment distinctly dilated towards apex, weakly shining and sparsely clothed with fine pubescence; 2nd to 11th segments densely clothed with fine appressed pubescence and sparsely with fine erect pubescence; last segment 4.6 times (male) or 4.2 times (female) as long as width; comparative length of each antennal segment as



Figs. 1-2. *Pidonia (Mumon) chienhsingi* KUBOKI, sp. nov., from Mt. Pei-ta-wu Shan in southern Taiwan; 1, ♂; 2, ♀.

follows:— $5 > 1 + 2 = 3 > 4 = 6$ (male) or $5 > 1 + 2 > 3 > 4 = 6$ (female).

Prothorax longer than basal width (male, 1.09: 1; female, 1.07: 1), somewhat deeply constricted both behind apex and before base and roundly expanded laterally just before the middle; breadth across expanded portions distinctly shorter than base (1.07: 1); basal margin weakly bisinuate, obviously broader than apical margin (male, 1.40: 1; female, 1.48: 1); pronotum convex above, coarsely punctate and sparsely clothed with fine pubescence; posterior lateral setae long; prosternum shining, extremely thinly clothed with short pubescence; meso- and metasterna finely punctate, densely clothed with fine appressed pubescence. Scutellum small and triangular, slightly longer than broad and bearing thin pubescence on the surface. Elytra 2.39 times (male) or 2.34 times (female) as long as basal width, gradually narrowed posteriorly (male) or almost parallel-sided (female) and separately subtruncate roundly at apices; surface closely and finely punctate, sparsely clothed with suberect, fairly long pubescence; interspace between punctures narrower than diameter of each puncture.

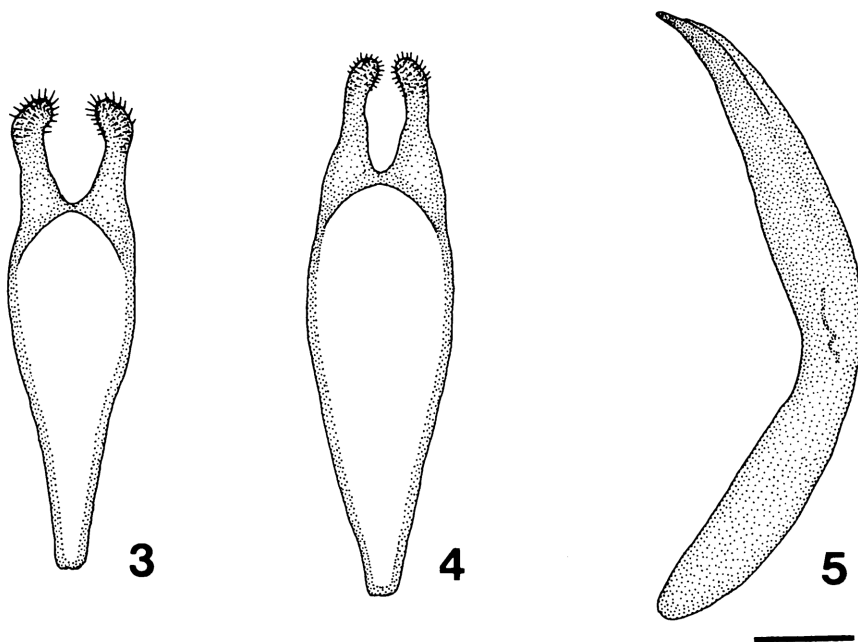
Legs relatively slender, finely punctate and clothed with short pubescence; femora clavate, with subappressed pubescence; hind femur not reaching elytral apex in both sexes; tibiae linear, with suberect pubescence; tarsi densely clothed with short pubescence on under surface; first segment of metatarsus longer than the following two taken together; third segment strongly dilated apically and deeply emarginate at middle of apex.

Abdomen elongate and gradually narrowed towards apex; surface of each sternite densely covered with extremely fine pubescence; in male, apex of last sternite round and very shallowly emarginate at middle, apex of last tergite round and weakly mucronate; in female, apex of last sternite round, apex of last tergite truncate.

Male genitalia:— Median lobe long, relatively slender, weakly sclerotized, gradually sclerotized towards apex, moderately curved ventrally (Fig. 5) and acutely pointed at apex; lateral lobes distinctly shorter than median lobe, deeply bilobed at apex; each lobe elongate, relatively slender and gently curved inwards; apex of each lobe round, sparsely furnished with short terminal hairs (Fig. 4); endophallus long, thick and furnished with a pair of falcate sclerites; diverticulum relatively long, thick and almost parallel-sided with round apex.

Female genitalia:— Spermatheca fairly sclerotized, broad and sharply bent at apical third, with round apex; the part continuing to spermathecal duct barrel-shaped with some constrictions; spermathecal gland located at the outer corner; the part continuing to spermathecal gland somewhat swollen; spermathecal duct relatively thick; vagina enlarged basally; valvifer almost parallel-sided; basal segment of coxite gradually narrowed apically; apical segment of coxite round at apex, weakly sclerotized at each inner part and sparsely furnished with sensory pubescence; stylus large, broad, rather heavily sclerotized except for apex and gradually enlarged apically with sparse and long hairs at terminal area.

Type series. Holotype: ♀, Mt. Pei-ta-wu Shan, 2,050 m in altitude on the southwestern slope, in Tai-wu Hsiang of Ping-tung Hsien, 2-V-1991, M. KUBOKI leg.



Figs. 3–5. 3, *Pidonia (Mumon) formosana* TAMANUKI et MITONO; 4–5, *Pidonia (Mumon) chienhsingi* KUBOKI, sp. nov. — 3–4, Lateral lobes of male genitalia, ventral view; 5, median lobe of the same, lateral view. Scale: 0.3 mm.

Paratypes: 1 ♂, 3 ♀♀, same data as for the holotype.

Distribution. Southern Taiwan.

This new species was collected from Mt. Pei-ta-wu Shan at the southern part of the Chung-yang Mountain Range. The vertical distribution of this species is shown in Fig. 11. Its distributional range is vertically limited to the upper part of the evergreen broadleaved forest zone.

I examined a total of 20 specimens belonging to the subgenus *Mumon* from Mt. Pei-ta-wu Shan and considered that they could be classified into two good species. These are *P. binigrosignata* HAYASHI and *P. chienhsingi* sp. nov. According to my investigation made on the southwestern slope of Mt. Pei-ta-wu Shan, *P. binigrosignata* is vertically distributed from 1,650 to 1,900 m in altitude and is one of the most dominant species. On the other hand, *P. chienhsingi* appears at an altitude of 2,050 m. These two species seem to be allopatric in distribution on Mt. Pei-ta-wu Shan.

Flight period. May.

Remarks. This new species is closely allied to *Pidonia formosana* TAMANUKI et MITONO, but can be distinguished from the latter by the following key:

1. Median lobe of male genitalia strongly curved ventrally; each lobe of lateral lobes relatively broad, weakly bending inwards at apical fourth; temples weakly expanded, gently curved in posterior halves; prothorax shallowly constricted

both behind apex and before base; disc of elytron coarsely and shallowly punctate *P. formosana* TAMANUKI et MITONO.

- Median lobe of male genitalia moderately curved ventrally; each lobe of lateral lobes relatively slender and gently curved inwards; temples somewhat strongly expanded, somewhat abruptly constricted in posterior halves; prothorax somewhat deeply constricted both behind apex and before base; disc of elytron finely and deeply punctate *P. chienhsingi* sp. nov.

The specific name is given after Mr. Chien-hsing WENG, Republic of China Alpine Association, Taipei, who is one of the most famous alpinists in Taiwan.

***Pidonia (Mumon) sacrosancta* KUBOKI, sp. nov.**

(Figs. 6–7, 9–10)

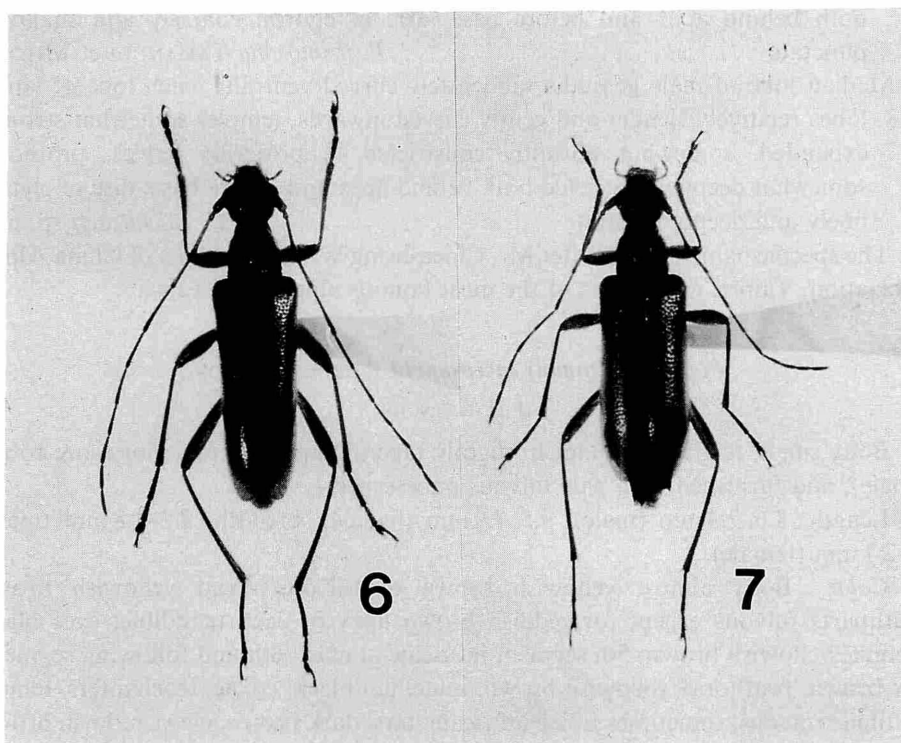
Body small, relatively roundish, slightly tapering apically (male) or more robust (female), and furnished with pale fulvous pubescence.

Length: 8.6–7.4 mm (male), 9.5–7.9 mm (female); breadth: 2.2–1.8 mm (male), 2.6–2.1 mm (female).

Color. Body almost yellowish brown to fulvous; head yellowish brown; mouthparts fulvous except for reddish brown apex of each mandible; eyes black; antennae yellowish brown; 5th segment infusate at apex; 6th and following segments dark brown; prothorax yellowish brown; scutellum black; coxae, trochanters, femora and tibiae fulvous; sometimes tibiae infusate; tarsi dark brown; claws reddish brown. Elytra almost yellowish fulvous; black markings almost wanting. Elytral markings:—Sutural marking very narrowly present, sometimes entirely lacking; latero-basal marking linear-oblong, small, very faintly present. Ventral surface:—Head and thoraces almost yellowish brown; meso- and metasterna darkened; abdomen fulvous.

Structure. Head a little broader across eyes than basal width of prothorax (male, 1.06: 1) or as broad as basal width of prothorax (female); terminal segment of maxillary palpus broadened apically, obliquely truncate at apex, with slightly curved outer margin in male; terminal segment of maxillary palpus club-shaped, gradually broadened in basal half and narrowed towards apex, obliquely truncate at apex, with curved outer margin in female; temples somewhat developed, almost impunctate and shining, gradually narrowed posteriorly in anterior halves and gently constricted in posterior halves, with several setae; frons subvertical and transverse, covered with coarse punctures, bearing a fine but distinct median longitudinal furrow extending backwards to vertex; vertex weakly convex above, rather shining, sparsely and finely punctate and sparsely clothed with long pubescence; gula shining, very sparsely clothed with long pubescence.

Eyes relatively prominent, moderately faceted and shallowly emarginate at middle of internal margins. Antennae relatively long and slender, inserted just behind the level across frontal margins of eyes; apical one segment surpassing elytral apices in male; antennae barely attaining elytral apices in female; 1st segment distinctly dilated



Figs. 6-7. *Pidonia (Mumon) sacrosancta* KUBOKI, sp. nov., from Pi-lu-shen-mu in eastern Taiwan; 6, ♂; 7, ♀.

towards apex, weakly shining and sparsely clothed with fine pubescence; 2nd to 11th segments densely clothed with fine appressed pubescence and sparsely with fine erect pubescence; last segment 4.8 times (male) or 3.9 times (female) as long as width; comparative length of each antennal segment as follows:— $5 > 1 + 2 \geq 3 \geq 6 \geq 4$ (male) or $5 > 1 + 2 = 3 \geq 4 \geq 6$ (female).

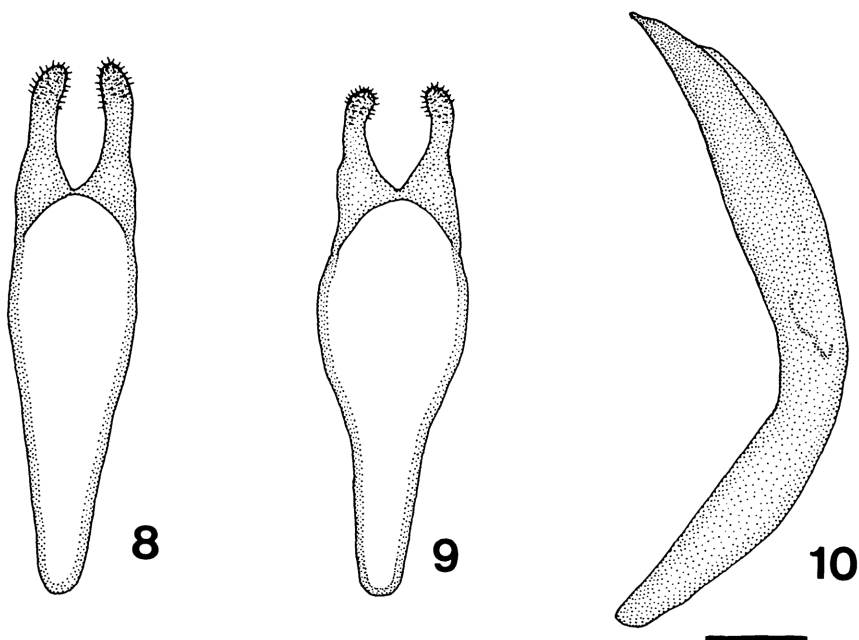
Prothorax longer than basal width (male, 1.08: 1; female, 1.02: 1), somewhat shallowly constricted both behind apex and before base and roundly expanded laterally just before the middle; breadth across expanded portions distinctly shorter than base (male, 1.11: 1; female, 1.08: 1); basal margin weakly bisinuate, obviously broader than apical margin (male, 1.45: 1; female, 1.48: 1); pronotum convex above, coarsely punctate and sparsely clothed with fine pubescence; posterior lateral setae long; prosternum shining, extremely thinly clothed with short pubescence; meso- and metasterna finely punctate, densely clothed with fine appressed pubescence. Scutellum small and triangular, slightly longer than broad and bearing thin pubescence on the surface. Elytra 2.54 times (male) or 2.35 times (female) as long as basal width, gradually narrowed posteriorly (male) or almost parallel-sided (female) and separately subtruncate roundly at apices; surface closely and finely punctate, sparsely clothed

with suberect, fairly long pubescence; interspace between punctures narrower than diameter of each puncture.

Legs relatively slender, finely punctate and clothed with short pubescence; femora clavate, with subappressed pubescence; hind femur not reaching elytral apex in male, not reaching elytral apex in female; tibiae linear, with suberect pubescence; tarsi densely clothed with short pubescence on under surface; first segment of metatarsus longer than the following two taken together; third segment strongly dilated apically and deeply emarginate at middle of apex.

Abdomen elongate and gradually narrowed towards apex; surface of each sternite densely covered with extremely fine pubescence; in male, apex of last sternite round and very shallowly emarginate at middle, lateral angles weakly emarginate, apex of last tergite round; in female, apex of last sternite round, apex of last tergite subtruncate.

Male genitalia:— Median lobe long, relatively slender, weakly sclerotized, gradually sclerotized towards apex, ventrally bent at basal third (Fig. 10) and acutely pointed at apex; lateral lobes distinctly shorter than median lobe, deeply bilobed at apex; each lobe elongate, relatively slender and gently curved inwards; apex of each lobe round, sparsely furnished with short terminal hairs (Fig. 9); endophallus long, thick and furnished with a pair of falcate sclerites; diverticulum relatively long, thick



Figs. 8–10. 8, *Pidonia (Mumon) aestivalis* KUBOKI; 9–10, *Pidonia (Mumon) sacrosancta* KUBOKI, sp. nov. — 8–9, Lateral lobes of male genitalia, ventral view; 10, median lobe of the same, lateral view. Scale: 0.3 mm.

and almost parallel-sided with round apex.

Female genitalia:— Spermatheca fairly sclerotized, broad and sharply bent at apical third, with round apex; the part continuing to spermathecal duct barrel-shaped with some constrictions; spermathecal gland located at the outer corner; the part continuing to spermathecal gland somewhat swollen; spermathecal duct relatively thick; vagina enlarged basally; valvifer almost parallel-sided; basal segment of coxite gradually narrowed apically; apical segment of coxite round at apex, weakly sclerotized at each inner part and sparsely furnished with sensory pubescence; stylus obovate, rather heavily sclerotized except for apex and gradually enlarged apically with sparse and long hairs at terminal area.

Type series. Holotype: ♂, Pi-lu-shen-mu, 2,300–2,050 m in altitude, near Mt. Pi-lu Shan, Hwa-ling Hsien, 12-V-1978, M. KUBOKI leg. Paratypes: 12 ♂♂, 6 ♀♀, same data as for the holotype; 6 ♂♂, 3 ♀♀, Pi-lu-shen-mu, 30-V~2-VI-1980, A. NISHIYAMA leg.; 19 ♂♂, 8 ♀♀, Pi-lu-shen-mu, 10-VI-1980, M. KUBOKI leg.

Distribution. Eastern Taiwan.

This new species was collected from Pi-lu-shen-mu at the northeastern part of the Chung-yang Mountain Range. The vertical distribution of this species is shown in Fig. 11. Its distributional range is vertically limited from the upper part of the evergreen broadleaved forest zone to the lower part of the evergreen needleleaved forest zone.

I examined a number of specimens belonging to the subgenus *Mumon* from Pi-lu-shen-mu and considered that they could be classified into two good species. These

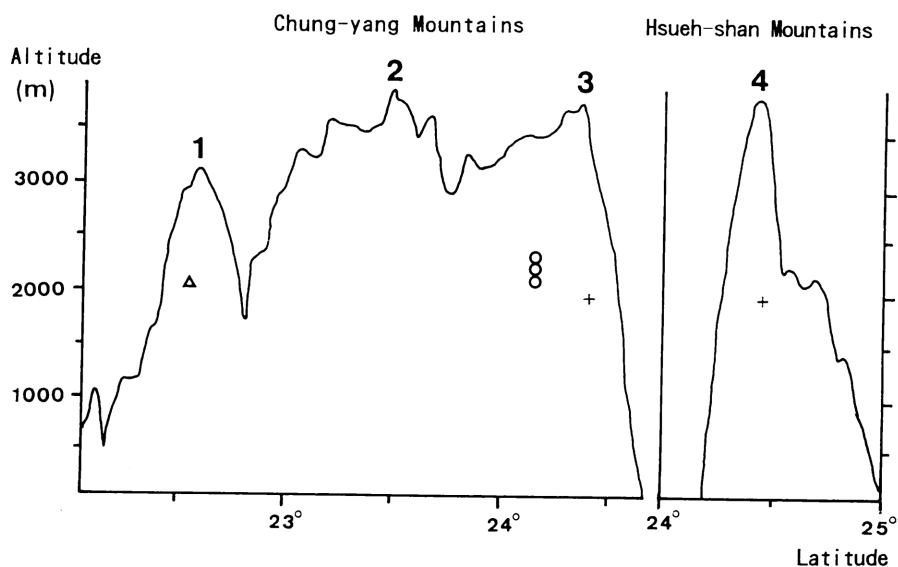


Fig. 11. Vertical distribution of two species belonging to the subgenus *Mumon* in Taiwan. Triangle: *P. chienhsingi*. Circles: *P. sacrosancta*. — 1, Mt. Pei-ta-wu Shan; 2, Mt. Yu Shan; 3, Mt. Nan-hu-ta Shan; 4, Mt. Hsueh Shan. Cross marks indicate the location of Si-yuan-ya-kou, on the borders between the Chung-yang Mountains and the Hsueh-shan Mountains.

are *P. confusa* S. SAITO and *P. sacrosancta* sp. nov. According to my investigation made at Pi-lu-shen-mu, *P. sacrosancta* is vertically distributed from 2,050 to 2,300 m in altitude and is one of the most dominant species in this area. *Pidonia confusa* is sympatric with *P. sacrosancta* over most of its range but is apparently much more scarce.

Flight period. May to June.

Remarks. This new species is closely similar to *Pidonia aestivalis* KUBOKI, but can be distinguished from the latter by the following key:

1. Antennae relatively short, extending beyond elytral apex at the middle to apex of 11th segment in male, distinctly shorter than elytral apex in female; stylus of female ovipositor subdeltoid and abruptly enlarged apically *P. aestivalis* KUBOKI.
- Antennae relatively long, extending beyond elytral apex at the base to middle of 10th segment in male, barely attaining elytral apices in female; stylus of female ovipositor obovate and gently enlarged apically *P. sacrosancta* sp. nov.

要 約

窪木幹夫：東アジア産ヒメハナカミキリ属の知見。V. 台湾で発見された *Mumon* 亜属の2新種。
—— 台湾の山岳地帯から採集された *Pidonia* 属の2新種, *P. (Mumon) chienhsingi* と *P. (M.) sacrosancta* を記載した。前者は屏東縣泰武郷の北大武山から採集された。 *P. formosana* TAMANUKI et MITONO に似ているが、雄の交尾器の中葉片の湾曲が弱く、側葉片先端の葉状部が細く、内側にやや弱く湾曲すること、頬が比較的強く膨れること、前胸部前後縁がやや深くくびれること、上翅の点刻が細かく深いことなどの差異によって区別できる。また、後者は花蓮縣秀林郷の碧祿—神木から採集された。 *P. aestivalis* KUBOKI に似ているが、触角が比較的長く、雄では10節の基部から中央部で上翅端を超え、雌ではわずかに上翅端を超えないこと、雌の産卵管先端の stylus が卵形を呈することなどで区別できる。なお、新名 *chienhsingi* は中華民國山岳協會の高山嚮導翁建興氏に献名した。

References

- TAMANUKI, K., & T. MITONO, 1939. One new species, subspecies and varieties belonging to the subfamily Lepturinae from Formosa. *Trans. nat. Hist. Soc. Formosa*, **29**: 207–215.
KUBOKI, M., 1994. Notes on the genus *Pidonia* MULSANT from Taiwan VIII (Coleoptera, Cerambycidae). *Ent. Rev. Japan*, **49**: 33–40.